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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,737	04/09/2004	Jochen Schweinbenz	10191/3610	1521

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EXAMINER

PAPE, ZACHARY

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,737

Applicant(s)

SCHWEINBENZ ET AL.

Examiner

Zachary M. Pape

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The following detailed action is in response to the correspondence filed 2/15/2005.

The objection to the specification (Title) has been withdrawn in view of the amendment to the title.

The objection to the drawings has been withdrawn in view of the amendment to the drawings.

The examiner thanks the applicants for the timely amendments.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3-12 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Clamp et al. (US 6,302,190).

With respect to claim 1, Clamp et al. teaches a housing for electronic control units comprising: a bottom section (32) for attaching the electronic control units (20); and a cooling device (Generally 30, which includes 40, 46, and 48) for enabling heat to be dissipated from the housing via a liquid flowing there-through (Column 2, Lines 31-39), wherein the cooling device is integrally formed in the bottom section (As illustrated in Fig 2).

With respect to claim 3, Clamp further teaches that the bottom section (32) includes a cooling plate (36).

With respect to claim 4, Clamp et al. further teaches that the cooling plate (36) has at least one integrated cooling channel (Wherein the channel begins at 46 and ends at 48; as illustrated in Fig 7).

With respect to claim 5, Clamp et al. further teaches sectional members (52) for conducting heat and reinforcing the bottom section (30) are situated on an outside of the cooling channel (As illustrated in Fig 6).

With respect to claim 6, Clamp et al. further teaches that the cooling channel passes through the bottom section in a linear manner (As illustrated in Fig 2 numeral 40).

With respect to claim 7, Clamp et al. further teaches that the cooling channel has a round cross-section (As illustrated in Figs 2 and 7, 46 and 48 both have round cross sections).

With respect to claim 8, Clamp et al. further implies in Fig 9 that an inlet of the cooling channel (94) and an outlet of the cooling channel (102) have threaded connectors leading into and out of the bottom section.

With respect to claim 9, Clamp et al. further teaches that the cooling plate has separate cooling channels (As illustrated in Fig 2, the first cooling channel is located near 40 and a second, separate cooling channel is located near 44).

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With respect to claim 10, Clamp et al. further illustrates that the separate cooling channels are connected by at least one separate cross hole (Running along the left side of the bottom as illustrated in Fig 2 and present office action Fig 1 below).

With respect to claims 11 and 12 the limitations of the claim have been given little patentable weight because the claims contain only limitations pertaining to the process of making the product. In the present case, the process by which the product is made does not structurally change the final product made. Since the product in the product-by-process claim is the same as or obvious from a product of the prior art (of Clamp et al.), the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clamp et al. in view of Xu et al. (US 6,742,326).

With respect to claim 2, Clamp et al. teaches that the electronic control unit is mounted on an engine (Column 2, Lines 54-55), but fails to specifically teach that the engine is mounted in a vehicle. Xu et al. teaches the conventionality of mounting an engine in a vehicle (Column 3, Lines 62-63). It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to mount the engine of Clamp et al. into a vehicle as taught by Xu et al. to provide a means of propelling a vehicle.

Response to Arguments

3. Applicant's arguments filed 2/15/2006 have been fully considered but they are not persuasive.

With respect to the applicants' remarks to claims 1, 3, 4, and 5 that, "Clamp discloses a physically separate cooling device", and further that "the housing part that most closely resemble the applicants' claimed "bottom section" is the housing part that has the so-called "rear surface 26"" the examiner respectfully disagrees. The examiner respectfully notes that the housing of Clamp is comprised of both the ECU (20) and the cooling plate (30) which connects to an engine via mounting elements 55. In light of this interpretation, the examiner is correct in asserting that, like the present invention, element 32 of Clamp provides a bottom section which is integrally formed with the cooling device (That is the cooling device (denoted 30) and the bottom section (32) comprise one piece).

With respect to the applicants' remarks to claim 6 that, "Clamp does not show a linear cooling channel", the examiner respectfully notes that the applicant's claim 6 only requires that, "the cooling channel passes through the bottom section in a linear manner", not that cooling channel must be linear.

With respect to the applicants' remarks to claim 7 that, "Clamp does not show a circular cross-section for the cooling channel", the examiner respectfully disagrees. As

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detailed in the present and previous office actions, both cooling channels 46 and 48 (As illustrated in Fig 2 and 7) are circular in cross section and therefore satisfy the requirement, "the cooling channel has a round cross-section".

With respect to the applicants' remarks to claims 9 and 10 that, "It is obvious that no separate cooling channel is provided, since only one cooling channel is present", the examiner respectfully disagrees. The examiner respectfully notes that Clamp intentionally included several separate cooling channels to, "constrain the fuel to follow a convoluted flow path through the flow conduit to increase residence time and the effective heat transfer from the electronic components". Therefore the flow path (40) is comprised of several separate cooling channels connected by at least one separate cross hole as illustrated in present office action Fig 1 below

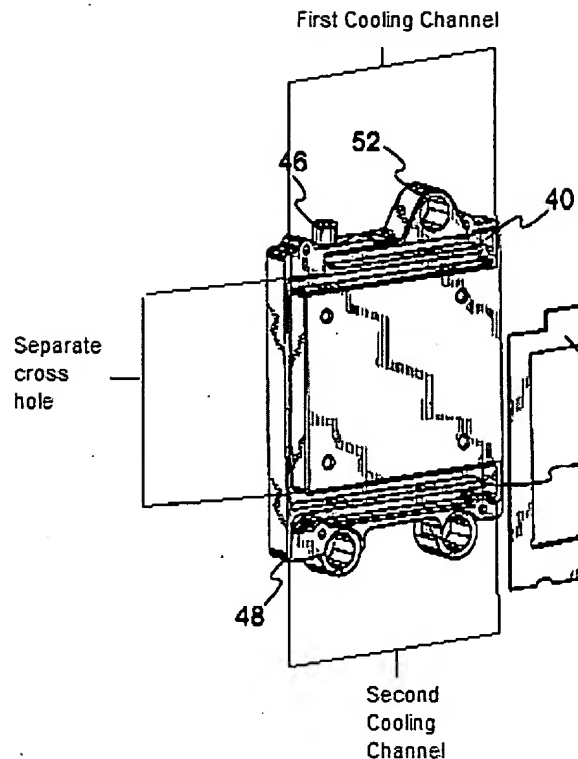


Fig 1

With respect to the applicants' remarks to claim 2 that, "Xu fails to remedy the deficiencies of Clamp as applied against parent claim 1", the examiner respectfully disagrees. As detailed in both the previous and present office action, Clamp teaches all the details of claim 1 but fails to teach that the engine is mounted in a motor vehicle as claimed. Xu clearly teaches mounted an engine in a motor vehicle (Column 3, Lines 62-64). The examiner further cited that the motivation to combine the engine of Clamp with a motor vehicle as taught by Xu was to propel the vehicle. The examiner respectfully notes that such a combination as supplied by the examiner satisfies all the requirements presented by the applicants on page 9 of the present remarks. The examiner further respectfully notes that the examiner is not relying on "the doctrine of inherent

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disclosure" as alleged, since the Xu reference explicitly teaches mounting an engine in a motor vehicle.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

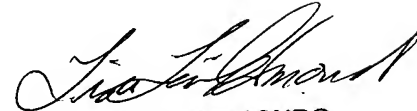
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP


LISA LEA-EDMONDS
PRIMARY EXAMINER